



## Oil Filled Radiators

Uncompromised high performance





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# Warranty terms & conditions

For the ThermoSphere Oil Filled Radiators V2 (product), Thermogroup Ltd will repair or, if necessary, at its sole discretion, replace the product, which falls within the Warranty Periods and Territory specified below, subject to the warranty conditions and the warranty exclusions. Warranty Period within the United Kingdom is 3 years from the date of purchase by the consumer.

Our goods come with guarantees that cannot be excluded under the UK Consumer Law. You are entitled to a replacement or refund for a major failure. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. It is the responsibility of the consumer to provide proof of purchase within the Territory.

## WARRANTY CONDITIONS

1. This warranty is applicable only for ThermoSphere appliances.
2. The product must be installed in accordance with the ThermoSphere Installation Instructions, to be supplied with the product, and in accordance with all relevant statutory and local requirements of the Territory in which the product is installed.
3. Where a failed component or product is replaced under warranty, the balance of the original warranty period will remain effective. The replaced part or product does not carry a new warranty.
4. Where a failed component or product is replaced or repaired under warranty, ThermoSphere will incur costs associated with shipping and repair at its sole discretion, if the unit is installed within the UK. If the unit is outside the UK, the associated costs are the responsibility of the owner.
5. Where the product is installed in a position that does not allow safe, ready access, the cost of accessing the site safely, including the cost of additional materials handling and/or safety equipment, shall be the owner's responsibility.
6. The warranty only applies to the product and therefore does not cover any plumbing or electrical parts supplied by others and not an integral part of the product, e.g. fused spurs, electrical switches, electrical cabling or fuses.
7. The benefits of this warranty are in addition to other rights and remedies of the consumer under laws in relation to the goods and services to which the warranty relates.
8. The product must be correctly sized to supply heat to the room.

## PROCEDURE FOR HONOURING WARRANTY

1. To initiate a claim for a warranty against defects, the consumer shall contact: Thermogroup Ltd T/A ThermoSphere, Bridge House, Pattenden Lane, Marden, Kent, TN12 9QJ, United Kingdom. [hello@thermosphere.com](mailto:hello@thermosphere.com). 0800 0195899.
2. The process will then follow the ThermoSphere Product Warranty Flow Chart to assess whether the product is under warranty.

## WARRANTY EXCLUSIONS

Repair and replacement work will be carried out as set out in the ThermoSphere warranty. However, the following exclusions may cause the ThermoSphere warranty to become void and may incur a service charge and/or cost of parts:

1. Accidental damage to the product or any component, including: Acts of God; failure due to misuse, abuse, fire or flood damage, incorrect installation, damage as the result of transportation, removal or storage, attempts to repair the product other than by a ThermoSphere Accredited Service Agent, the ThermoSphere Service Department or a repairer not approved by ThermoSphere.
2. Where it is found there is nothing wrong with the product; where the complaint is related to circumstances where the supply of electricity or water does not comply with relevant standards, codes or acts, ThermoSphere may then charge the consumer a nominal service charge if inspection reveals no fault with the product unit or its installation.
3. Where the product is located in a position that does not comply with the ThermoSphere Installation Instructions or relevant statutory requirements, causing the need for major dismantling or

removal of cupboards, doors or walls, or use of special equipment to bring the product to a serviceable position.

4. Subject to any rights you have under UK Consumer Law or other statutory provisions to the contrary, this warranty excludes any and all claims for damage to furniture, carpets, walls, foundations or any other consequential loss either directly or indirectly due to damage from the product caused by workmanship or other.

## Important information and warnings!



1. Please read these instructions carefully before using the device for the first time. Keep these instructions, as well as the guarantee, your invoice and if possible, the complete packing with all the elements inside.
2. The guarantee will cease to be valid in the case of not following the recommendations of this manual.
3. Check that the power is sufficient to supply the appliances. The total current of the radiator must not exceed the capacity of the circuit breaker that protects it.
4. This radiator must be used in rooms with the presence of gases or other flammable substances.
5. WARNING: To prevent overheating, do not cover the device and do not use the device to dry clothes.
6. Make sure the power cable or other objects do not come into contact with the radiator surface while in operation.
7. If the power cable becomes damaged it must be replaced by the manufacturer or a suitably qualified trades person. Failure to comply may danger your safety and voids the warranty.
8. Check the device and the supply cord regularly. Do not turn the device on if it is damaged in any way.
9. PRECAUTION: Some parts of this product can reach very high temperatures and potentially cause burns. Pay special attention when children or vulnerable people are around.
10. The power socket or spur should be to the side of the heater, never above, below or behind it.
11. Children must not be allowed to touch or play with the radiator and should be supervised at all times.
12. This device can be used by children under 8 years of age, as well as by people with reduced physical, sensory or mental capabilities when suitably supervised and only when they have been provided the instructions regarding the use of the device and have understood the risks that could derive from it. Cleaning must only be carried out by an appropriate adult.
13. Warning: Do not use this heater near baths, showers, swimming pools or any other water outlet. It should not be possible to access the device controls from a bath, shower or any other surface that is in contact with water. Use in zones 0 or 1 in bathrooms is totally prohibited. Seek advice from a qualified electrician.
14. For safety this appliance is provided with a device that interrupts its operation in the case of overheating.
15. This radiator has been designed exclusively to be fixed to the wall and must not be used floor standing or laying down. For further information on the fixing method consult the "Installation and wall mounting" section of this manual.
16. Do not use accessories that have not been recommended by the manufacturer, as they could entail a potential risk to the user and damage the device. Use only original accessories.
17. Keep all the packaging elements (plastic bags, card-board and polyethylene) out of the reach of children, as they can cause potentially dangerous situations.
18. This device is intended for domestic or light commercial use, not industrial use. It must not be used outdoors, in greenhouses or for animal husbandry. Keep it away from heat influences, direct sunlight, humidity and cutting tools.
19. Do not under any circumstances immerse in water or use this device with wet hands. In the case of humidity or water in the device, immediately disconnect the power supply and do not touch until it has fully dried internally and externally.
20. Do not attempt to service the device yourself. Contact a professional electrician or ThermoSphere.
21. Do not pull the power cable or apply any or pressure to it.
22. Adhere to safety advice and guidance at all times.
23. Once installed the appliance must always be kept in a vertical position.
24. Make sure the appliance is secured to the wall at all times. Please adhere to the clearance distances indicated in this guide.
25. Do not hang any object in front of or on top of the device.
26. Always ensure that the air inlet and outlet are clear and not obstructed. This is important for efficient operation and safety.
27. Always install the device so that it cannot come into contact with any combustible materials such as curtains or towels.
28. Do not get water inside the device when cleaning, This is dangerous and can cause irreparable damage to the electronics.
29. Do not insert any object through the grill or inside the device.
30. This radiator is designed to be plugged into the mains electrical circuit or connected via a switched fixed spur.

### Thermal safety cut out

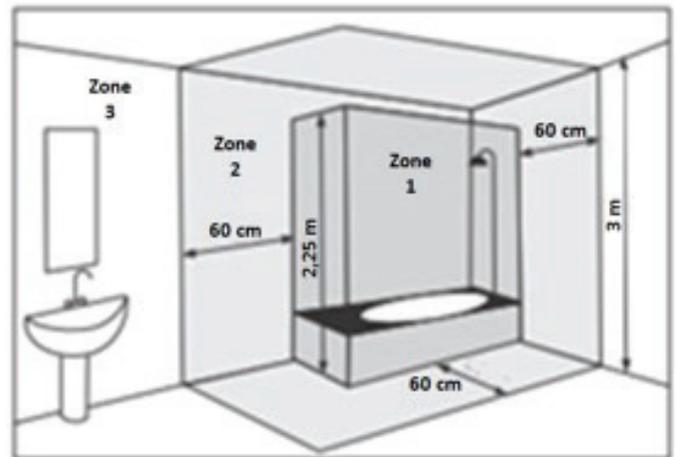
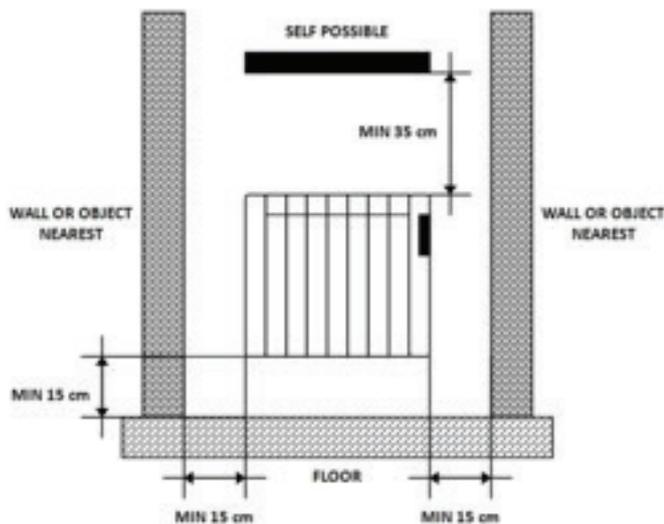
This heating device is fitted with a high temperature cut off switch that cuts the power to the heating elements if a high temperature limit is exceeded. This switch resets automatically when the temperature has sufficiently cooled.

### Maintenance

This heating device does not require any regular maintenance but there are some good practices that should be followed during cleaning or repair. Disconnect the heater from the mains before carrying out any cleaning or repair work. Let the product cool down before cleaning with a soft damp cloth. Only clean the outside of the radiator to remove any dust. Do not use any detergents, abrasives or solvents to clean the radiator.

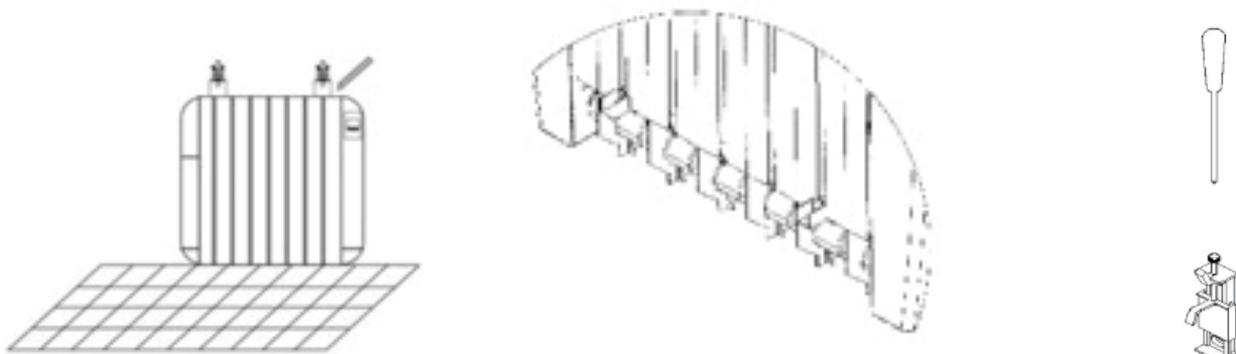
# Installation notes

- A smell and some clicking sounds may be present during the first few minutes of use. This is due to the elements working for the first time and the expansion of some of the internal parts. This is normal and can be helped with adequate ventilation.
- For greater efficiency make sure to calculate the power or the number of elements of the apparatus according to the volume of the room. We recommend contacting ThermoSphere for help performing this calculation.
- Fix the radiator to a firm load bearing wall and make sure it is installed level.
- Avoid installing the appliance in corners of the room. This can hinder the convection effect and affect efficiency.
- We advise against installing under the windows, because this can be a high heat loss area.
- The radiator must be installed at a minimum distance of 150mm from any material, curtains, furniture, etc.(Fig.1).
- Allow for a minimum distance of 1m from the front of the unit to any objects that could hinder its operation.
- Keep a minimum distance of 150mm between the sides of the heater and any other obstacle.
- Keep a minimum distance of 350mm between the top of the heater and any other obstacles.
- The heater must be installed at least 150mm above the floor level to allow adequate air circulation.
- **WARNING:** If this appliance is installed in a bathroom, it must be installed only within Zones 2 or Outside Zones (Zone3), according to BS 7671 Requirements for Electrical Installations, Section 701. The installation of this appliance within Zones 0 or 1 of a bathroom is totally prohibited. The figure 2 below is only for information purposes, we suggest you contact a professional electrician.



## Mounting to the wall

The heater is equipped with 2 wall mounting brackets that must be securely fixed to a load bearing wall with suitable fixings. Position the brackets on the wall at the correct spacing and mark the fixing holes. Drill holes suitable for your fixings and secure the brackets in place. Insert the wall spacers into the back of the radiator, close to the bottom and hang it over the wall brackets. Secure in place with the 2 safety screws.



## Electrical connections

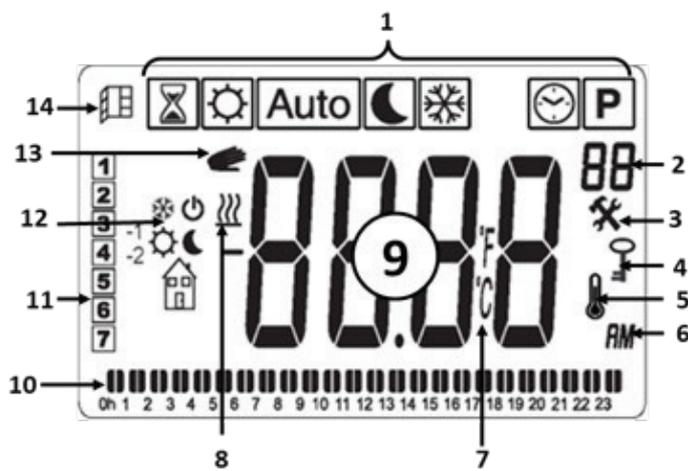
The heater is normally supplied with no plug ready for wiring into a switched fused spur. The Live, Neutral and Earth must be connected to the correct terminal in the fused spur and the correct size fuse must be installed. If your radiator does arrive with a plug it can be removed to facilitate direct wiring into a fused spur.

## Technical data

Stock Code	Output (W)	BTU/h	Amps (A)	Max area (m <sup>2</sup> ) <i>Good Insulation</i>	Max area (m <sup>2</sup> ) <i>Poor Insulation</i>	Weight (Kg)	Colour
TSR-0500-A	500	1706	2.2	6	5	7.4	White
TSR-0800-A	800	3412	4.4	9	8	11.1	White
TSR-1000-A	1000	3412	4.4	12	10	12.8	White
TSR-1300-A	1300	4436	5.7	15	13	16.9	White
TSR-1500-A	1500	5118	6.5	18	15	18.7	White
TSR-2000-A	2000	6820	8.7	24	20	24.6	White

Technical data		Model	W (mm)	H (mm)	D (mm)	Fins
Voltage	230V AC 50Hz	TSR-0500-A	355	590	95	3
IEC protection	Class I	TSR-0800-A	505	590	95	4
Protection rating	IP20	TSR-1000-A	595	590	95	6
Cable length	1.5m (white)	TSR-1300-A	745	590	95	8
Wiring connection	Hard wired	TSR-1500-A	835	590	95	9
Warranty	5 years	TSR-2000-A	1075	590	95	12

# User interface



## Display elements

1. Operating mode menu (active mode is framed).
2. Program number or parameters number if "3" is displayed.
3. Installation parameter menu.
4. Key lock function indicator.
5. Room temperature indicator.
6. Clock type (12H or 24H).
7. Temperature unit.
8. Heating demand indicator.
9. Display area for time, temperatures and parameters.
10. Graphic view for the current day program.
11. Current day of the week or Eco design information (comfort mode).
12. Icon for pilot wire indication, edit program mode or consumption power menu.
13. Override function in AUTO mode or ITCS function if blinking.
14. Open window detection indicator.



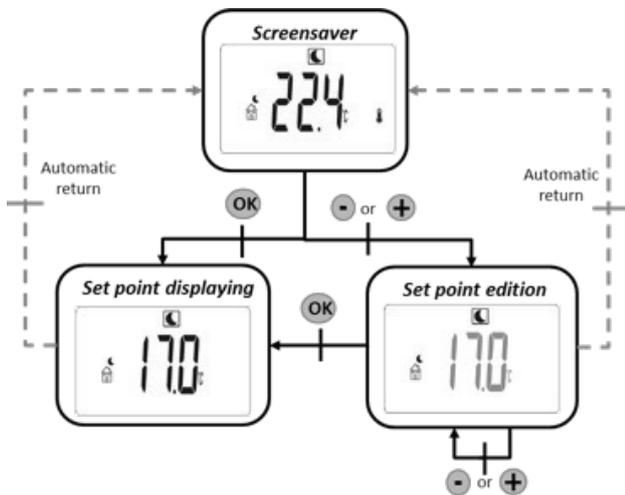
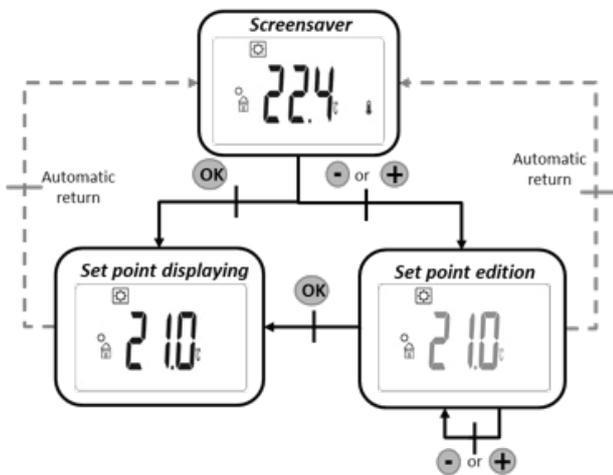
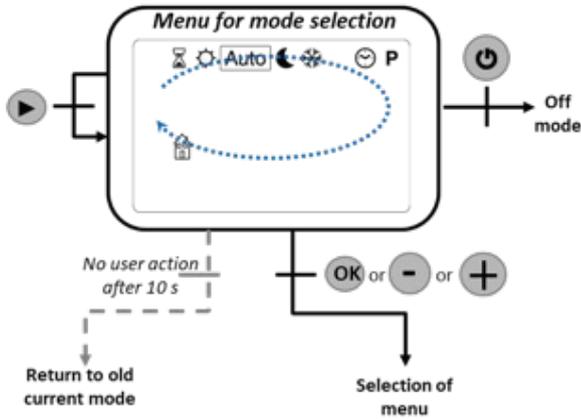
## Keyboard

1. On/off key
2. Minus key
3. OK/Validation key
4. Plus key
5. Right navigation key

Press to power the heater on/off.

Press and hold for 5 seconds to access the settings.

# Mode selection



Press to cycle through the operating modes and press to select and confirm. In each mode's screen saver you can adjust the working parameters of the mode.

The operating modes are: Comfort, Auto, Reduced, Anti-freeze, Edit time, Boost, Consumption and Edit program.

If you do not press within 10 seconds the thermostat returns to the previous operating mode.

## Comfort mode

In this mode the set comfort temperature is always maintained. Simply set the desired temperature using the and keys and confirm by pressing .

If you do not press your selection will be confirmed automatically within a few seconds.

If user doesn't validate the new setting, it will be validated automatically after a few seconds.

The temperature set for comfort mode will also be used for the on periods of the heating schedule in Auto mode.

You can cycle between the measured temperature and the set temperature by pressing .

Default Value: 21°C

Range: 5.0°C to 30°C

## Reduced mode

In this mode the set reduced temperature is always maintained. Simply set the desired temperature using the and keys and confirm by pressing .

If you do not press your selection will be confirmed automatically within a few seconds.

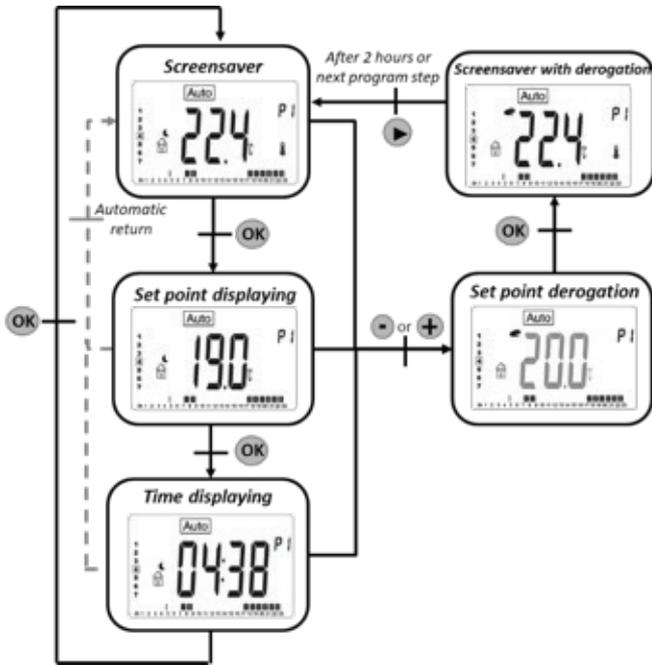
If user doesn't validate the new setting, it will be validated automatically after a few seconds.

The temperature set for reduced mode will also be used for the off periods of the heating schedule in Auto mode.

You can cycle between the measured temperature and the set temperature by pressing .

Default Value: 21°C

Range: 5.0°C to 30°C



### Auto mode Auto

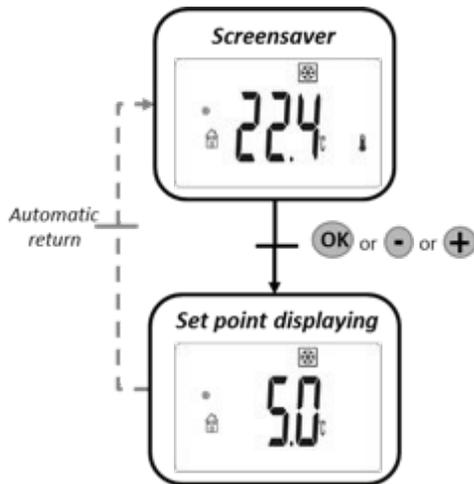
In this mode the internal thermostat will follow the chosen heating schedule. There are built in preset schedules P1 to P9 and the option of up to 4 customised schedules U1 to U4.

The schedules automatically switch the radiator between Comfort and Reduced temperatures according to the time of day.

Press **OK** to switch the display between measured temperature, set temperature and time.

You can press the **+** and **-** keys to override the temperature at any time, until the next scheduled change or for a maximum of 2 hours. Press **OK** to confirm the selection.

The hand icon will be displayed while the override temperature is active.

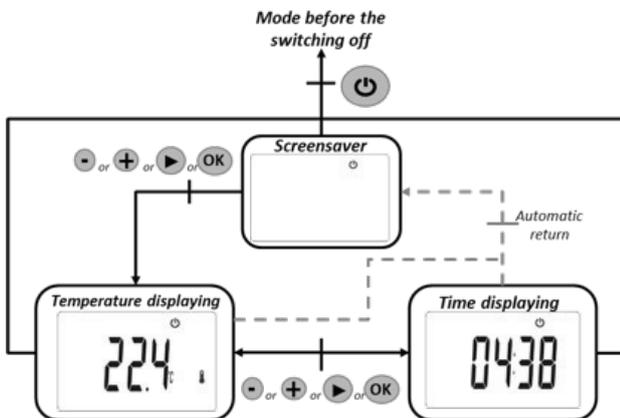


### Anti-freeze mode

In this mode the anti-freeze temperature will be maintained all the time.

The default anti-freeze temperature is 5°C but can be adjusted in the settings menu.

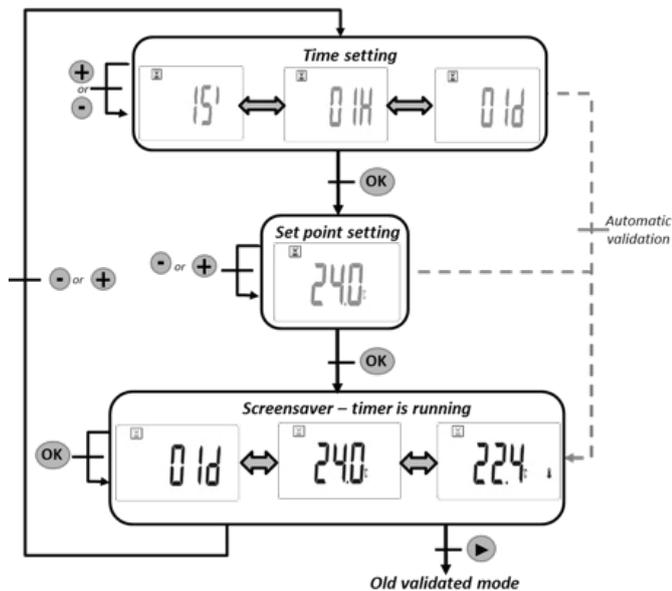
Press **OK** to switch the display between measured temperature and set temperature.



### Off mode

In standby mode the screen is blank other than the power logo. You can press the **OK**, **+** and **-** keys to display the measured temperature or time.

Press to turn the heater on. The heater will switch on in the last used mode.



### Boost mode

In this mode allows the user to select a temperature and maintain it for a set duration of time.

To set the time duration press **OK** then press **+** and **-** to adjust the running time between 15, 30, 45 minutes or 1 to 23 hours or 1 to 44 days.

Press **OK** to confirm the time and switch to temperature setting.

Press the **+** and **-** keys to select a running temperature between 5 to 37°C.

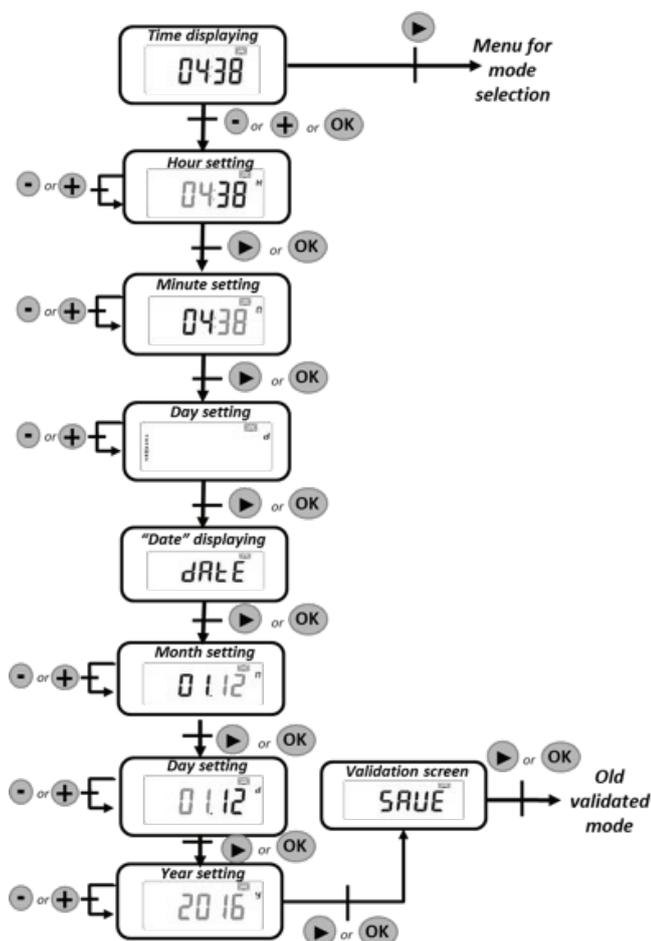
Press **OK** to confirm the temperature and start the boost time period.

When the timer is running the boost icon will flash and the set temperature and remaining time will alternate on the display.

Press **OK** to show the measured temperature.

Press the **+** and **-** keys to change the settings.

When the boost timer ends the boost icon will stop flashing and the heater will return to the previously selected mode.



### Edit time mode

In this mode allows the user to edit the time and date.

The values can be adjusted in this order:

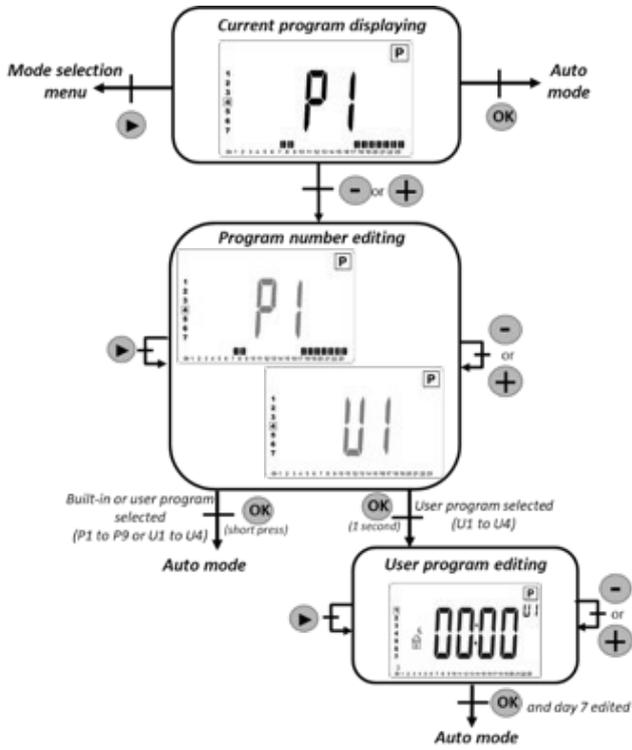
1. Adjust hours.
2. Adjust minutes.
3. Adjust month.
4. Adjust day.

The days are numbered 1-7 (Monday-Sunday).

When a value is blinking it can be adjusted using the **+** and **-** keys.

Press **OK** to confirm the selection and switch to adjust the next value.

After setting the year, press **OK** to save settings. Settings will be saved automatically if no button is pressed.



## Program menu **P**

Pressing **▶** cycles through the days to show a preview of the scheduled times.

Press **+** and **-** to change the selected preset schedule and press **OK** to confirm.

Press and hold **OK** to edit the chosen schedule.

P1 to P9 are pre-set built-in schedules. You can see these schedules later in this guide.

### Edit a schedule:

Press **▶** to move along the time periods.

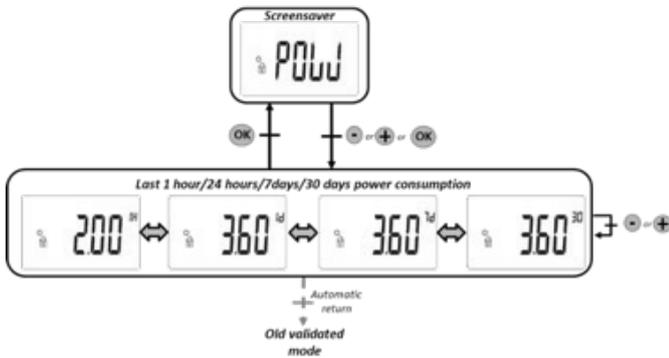
Press **-** to assign the reduced temperature to this time period.

Press **+** to assign the comfort temperature to this time period.

Press **OK** to confirm the new schedule settings.

Repeat this process for the 7 day period.

When you press OK at the end of the 7th day the process is complete and Auto mode is activated.



## Power consumption menu

This mode is only available if the user has set and confirmed the heater power.

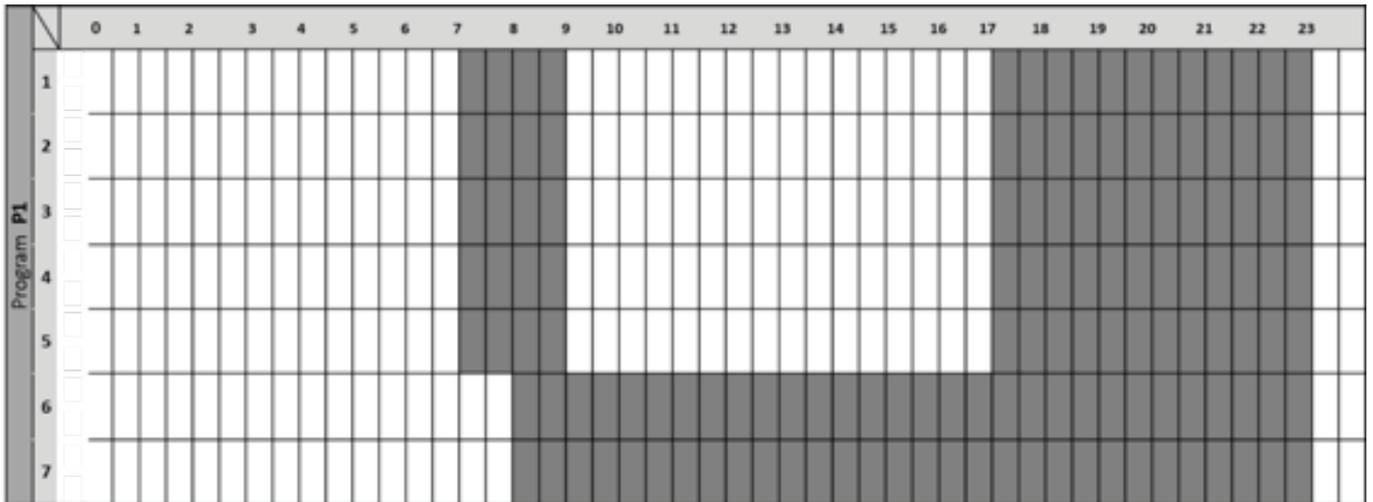
Press **+** and **-** to change the displayed time period for power consumption data. The options are 1 hour, 24 hours, 7 days and 30 days. The power consumption is displayed in kW.

Press and hold **OK** to reset the consumption values.

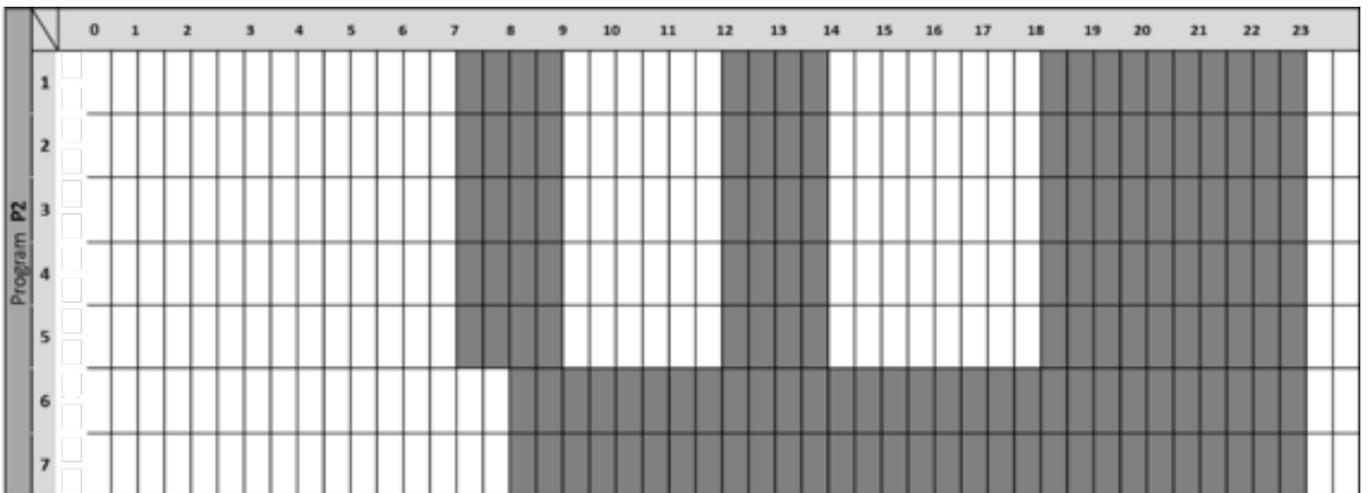
Press **▶** to return to the mode selection menu.

The consumption data is automatically saved every 4 hours and is kept for a maximum of 12 hours in the event of power failure.

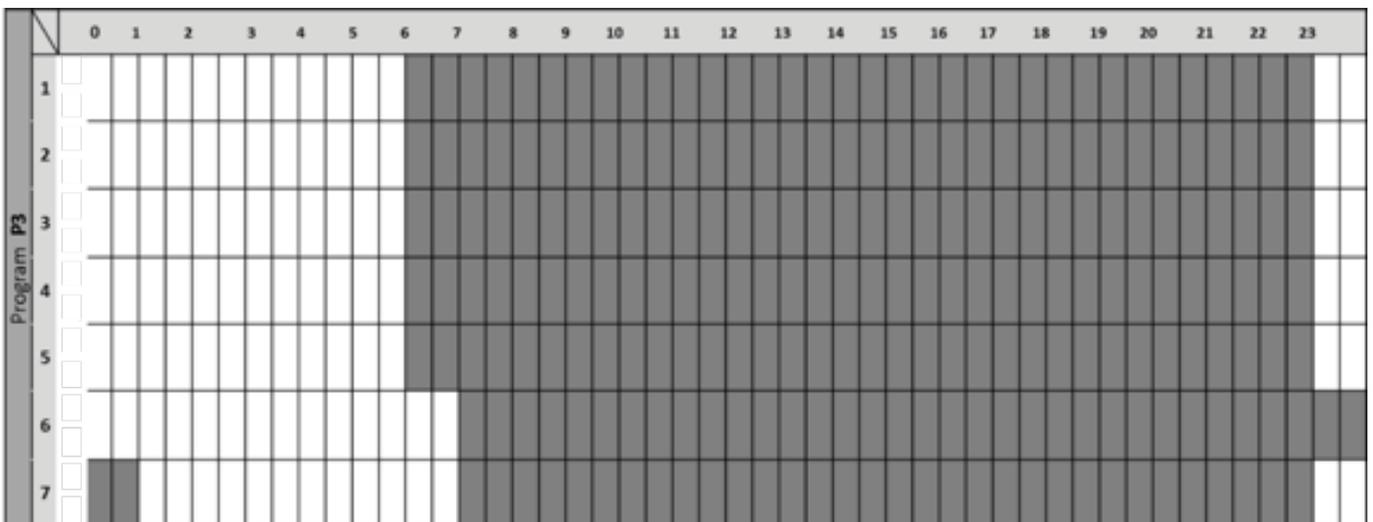
# Built-in schedules



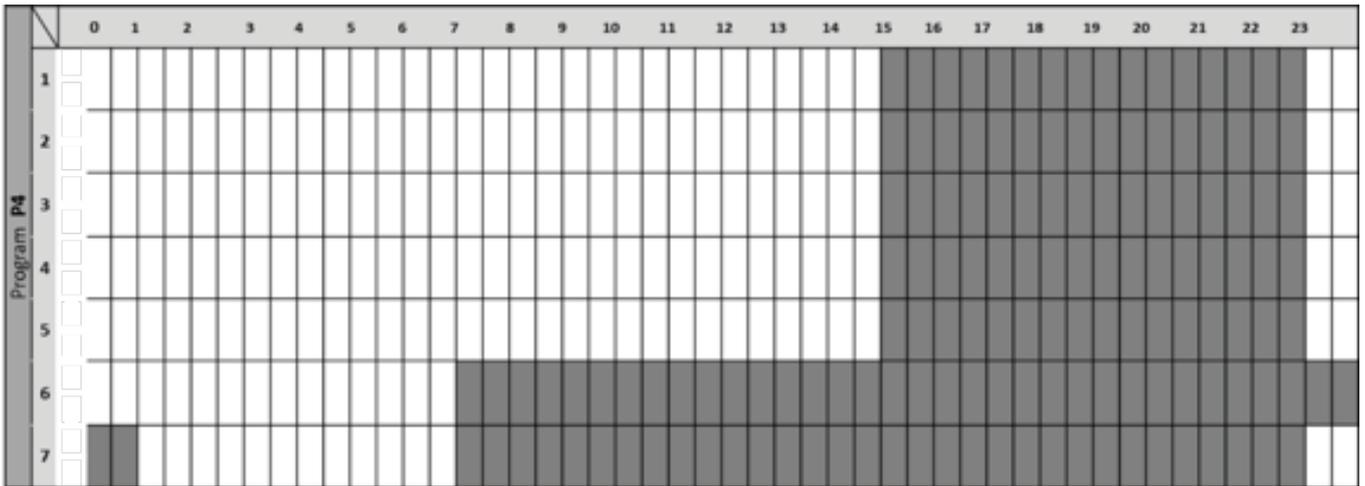
P1 Morning, evening and weekend.



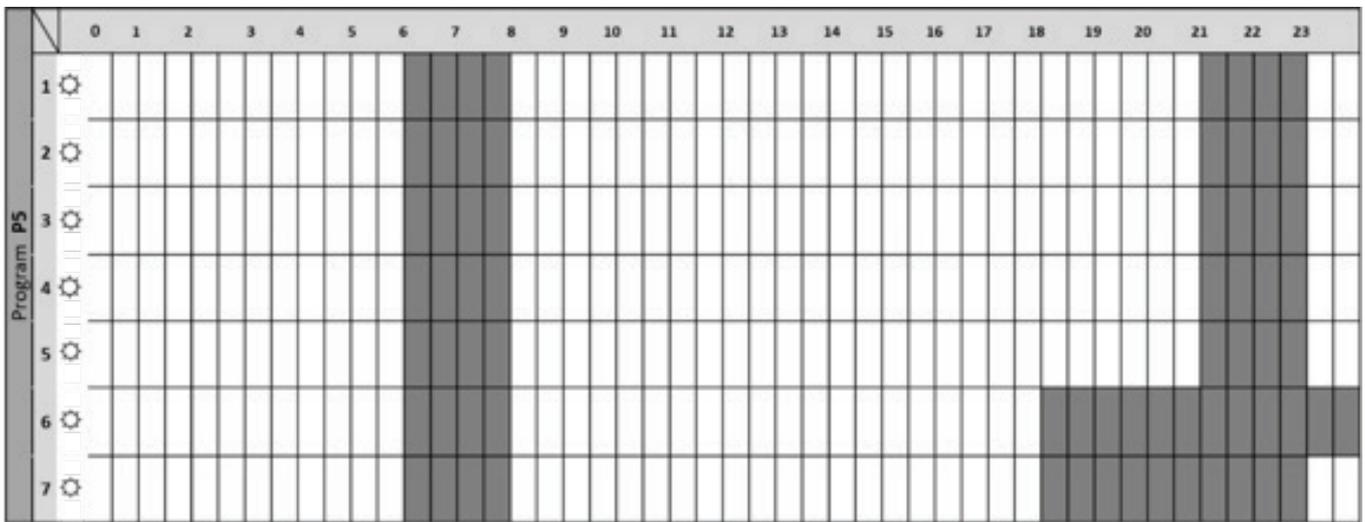
P2 Morning, afternoon, evening and weekend.



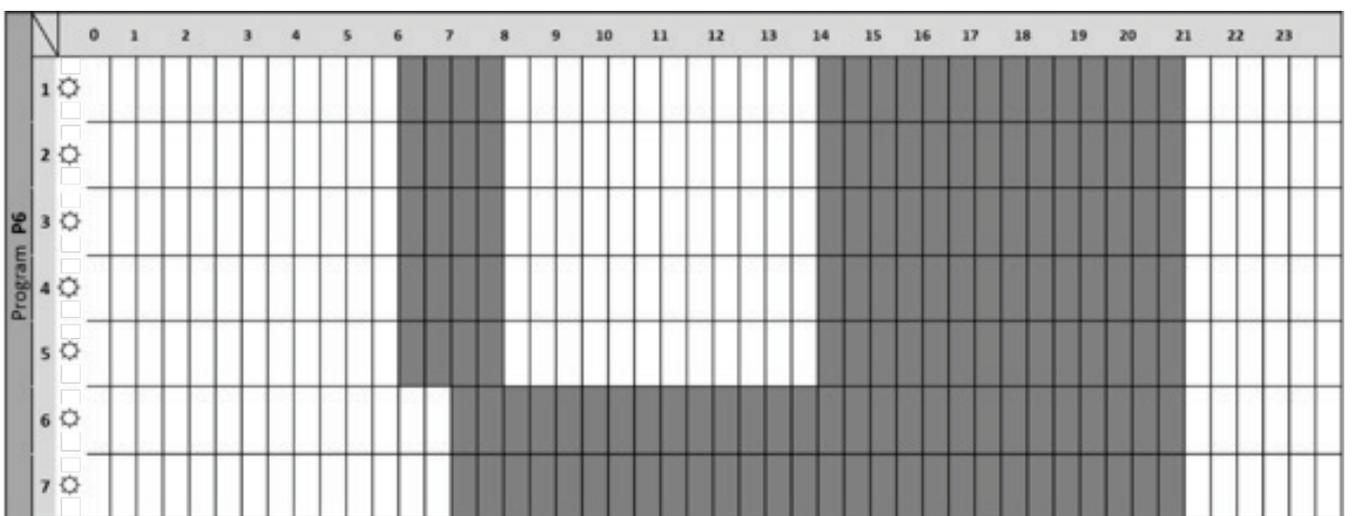
P3 Week days, Saturday and Sunday night.



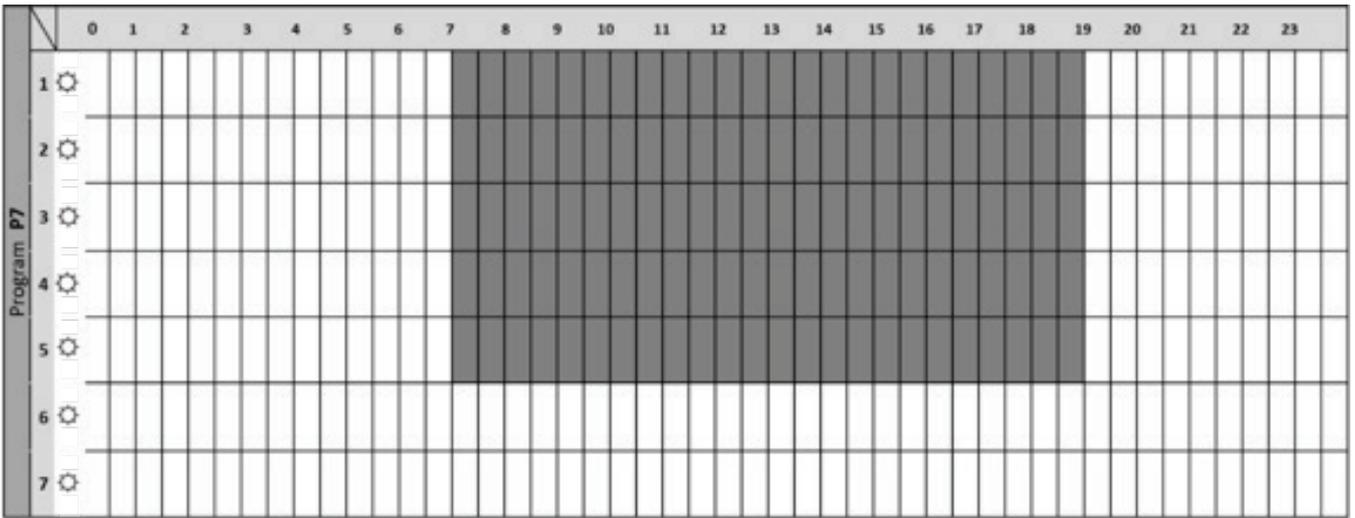
P4 Evening, Saturday and Sunday night.



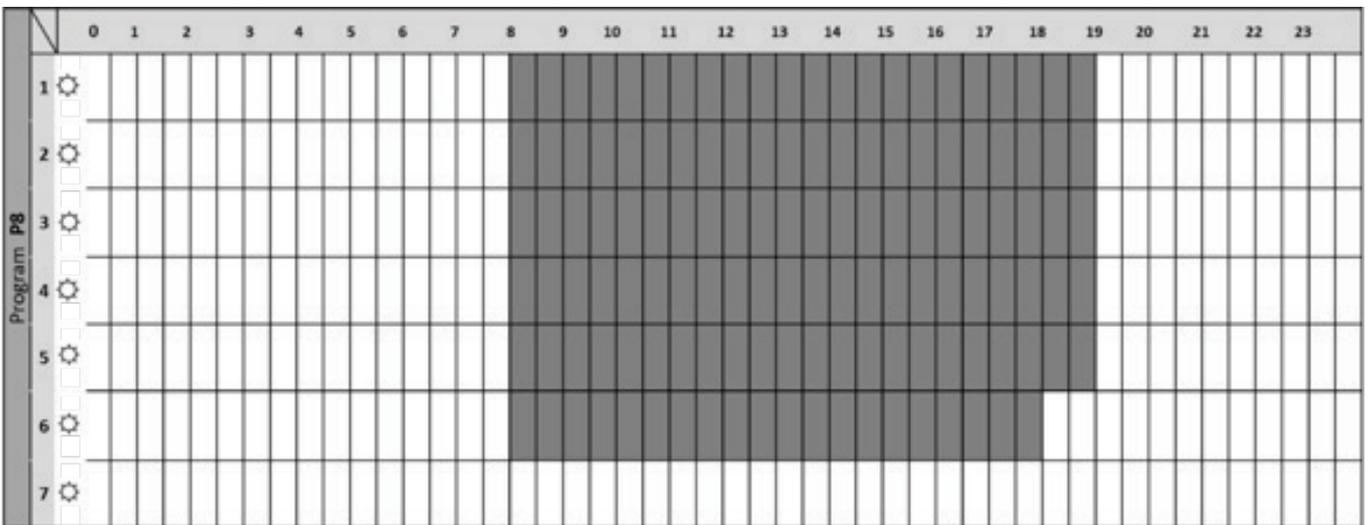
P5 Morning, evening, Saturday and Sunday.



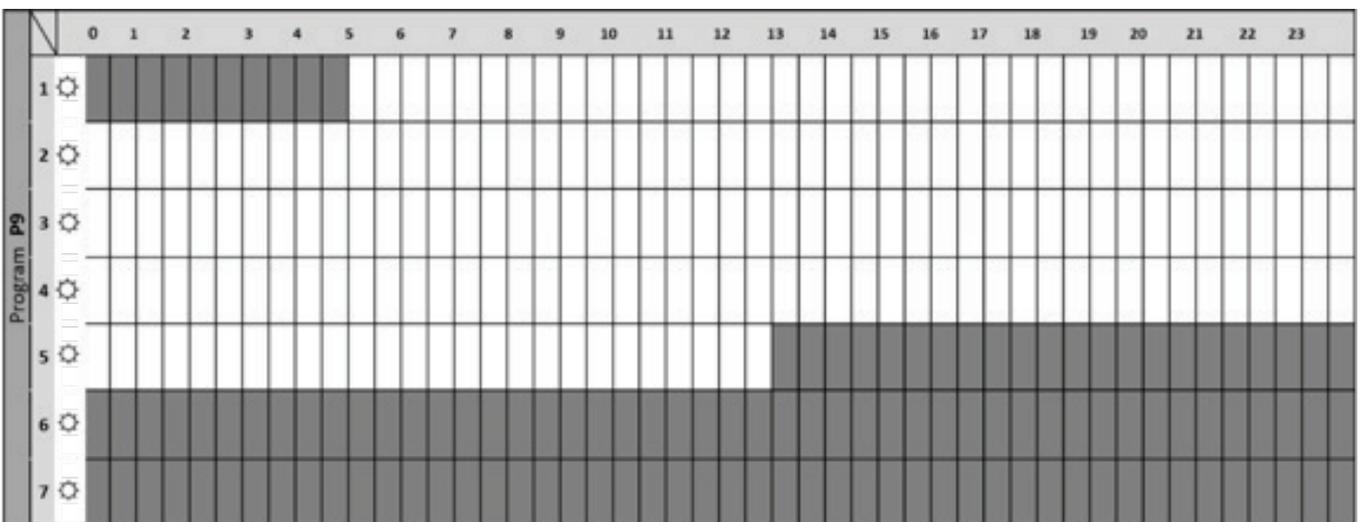
P6 Morning, afternoon and weekend.



P7 Office hours Monday to Friday and weekend

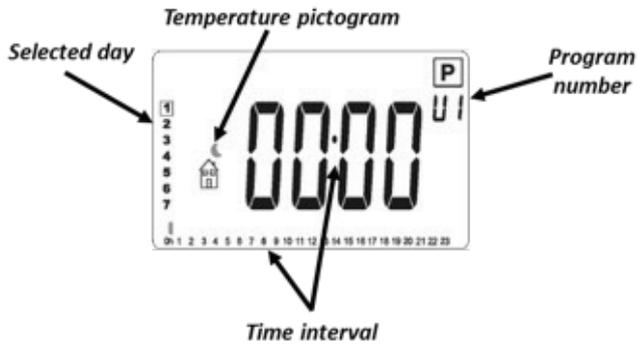


P8 Shop hours Monday to Friday and Saturday.



P9 Second home Friday to Monday.

## Editing a user program



Programmed heating schedules apply the pre-set Comfort and Reduced temperatures at the selected time. Each time interval is set at 30 minutes.

The schedule starts with day 1 (Monday).

To edit the program:

Press **+** select the Comfort temperature per time period.

Press **-** select the Reduced temperature per time period.

Press **▶** to move the cursor through the time periods.

At the end of the day, press **OK** to confirm your settings and move to the next day in the sequence.

When you have completed all 7 days the thermostat starts working according to the set program.

## Other functions

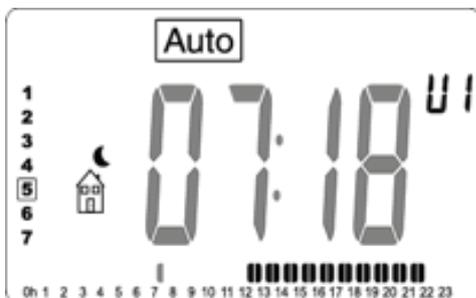


### Open window detection

This feature is an energy saving device that switches the heater off if an open window or door is detected. The radiator measures the temperature and if a sharp decrease of more than 1.5°C is detected within 30 minutes the heating will be switched off.

When the temperature rises more than 0.3°C during the next 30 minutes the heater will switch back on again and resume the previous operating mode and temperature.

When an open window warning is triggered the temperature will blink and the open window icon will be displayed .



### Time saving after power failure

The thermostat has an internal memory, so after a power cut the settings and heating schedule will be saved.

The clock will continue to run for a maximum of 12 hours. After the 12 hour period the time will be lost and must be set by the user when power returns.

If the time is lost the clock will blink until it is reset by the user.



### Key lock

As a safety or child lock feature the keys on the thermostat can be locked to prevent tampering.

To lock the keys press and at the same time while on the main screen.

When the key lock is activated the key icon will be displayed on the right hand side of the screen .

To unlock the keys press and at the same time while on the main screen.

The key lock status will be maintained after a power failure.

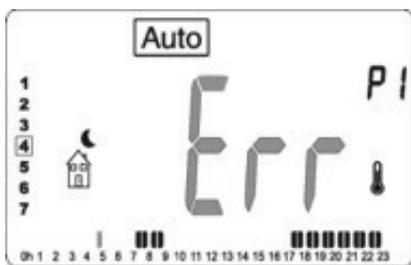
## Settings menu

To access the settings menu press and hold for 5 seconds. Move between settings pages by pressing .

Adjust the settings by pressing and . Confirm settings by pressing .

Display	Description	Range	Default
	Temperature unit	°C or °F	°C
	Clock format	24H or 12H	24H
	Daylight savings (Automatic change)	Yes / No	Yes
Temperature calibration			
	The first screen will show the actual measured temperature. Press OK to show the calibrated temperature. If the offset is 0 <<NO>> will be displayed. Press  and  to set the offset value and press  to confirm.	-5°C to +5°C	0 (No calibration)
	Anti freeze temperature Press  and  to adjust the set point temperature for the anti freeze mode.	5°C to 10°C	5°C

Display	Description	Range	Default
	<p>Intelligent temperature control system.</p> <p>This is an intelligent adaptive auto start feature for AUTO mode. The heater will calculate the required heat up time and adjust it at each program change to maintain optimum efficiency. The hand icon will be visible during these adaptive pre-heat periods</p> 	Yes or No	Yes (Active)
	<p>Open window detection</p> <p>Heater detects an open window or door and automatically turns off. Turns on again when temperature rises.</p>	Yes or No	Yes (Active)
	<p>Heater power value</p> <p>This is the rated power of the heater and is used in the calculation of energy consumption.</p>		
	<p>Factory reset</p> <p>Performing a factory reset will restore all settings and memory back to the factory defaults. Press and hold  for 5 seconds to perform a reset.</p> <p>Default settings:</p> <ul style="list-style-type: none"> <li> Comfort temp 21°C</li> <li> Reduced temp 19°C</li> <li> Anti freeze temp 5°C</li> </ul> <p>Program U1 to U4 Time format: 24H Temp unit: °C ITCS: On Sensor calibration: No Auto daylight saving: On</p>	-5°C to +5°C	0 (No calibration)
	Software version		
	Press  to exit the settings menu		



#### Sensor error "Err"

The temperature sensor is damaged or not functioning and the radiator must be repaired or replaced. The temperature icon will also flash.





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